



Geospatial Solutions for Rural and Community Sustainability

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The Need

- Geospatial learning resources 24/7
- Current peer reviewed research & resources
- Successful real world applications
- Currently there is limited and/or localized information
- A collaborative platform for content developers to work in virtual environment

eXtension



- Internet-based educational partnership of the 74 land grant institutions
- Internet access to the nation's largest educational and information system
- Any time, any place, any device



<http://www.extension.org>



eXtension is Extension!

Community of Practices (CoP)

- **eXtension Community of Practice (CoP)**
content-focused team
- **A network of people who share a common interest in a specific area of knowledge or competence and are willing to work and learn together over a period of time to develop and share that knowledge**

21 Communities of Practice 5 are online

Entrepreneurs and Their Communities

Imported Fire Ants

Personal Finance

Horses

Wildlife Damage Management

Map@Syst Purpose

Geospatial Technologies for:

- community planning and management
- precision agriculture
- natural resources and environment
- homeland security
- disaster management
- public health and safety
- 4-H and youth development

Map@Syst CoP

- **Network of subject matter content providers**
 - faculty / county educators
 - professional
 - government agency representatives
 - industry experts
 - clients
- **Promotes collaborative development and reduces duplication of effort**
- **Continual interaction of the CoP with Community of Interest (Col)**

Map@Syst CoP Expertise/Subject Areas

Expertise

- global positioning systems
- geographic information systems
- remote sensing
- web mapping
- geospatial data
- metadata

Subject Areas

- community planning and management
- precision agriculture
- natural resources and environment
- homeland security
- disaster management
- public health and safety
- 4-H and youth development

WIKI Technology

- What is a Wiki?
- Online content management system
- Multiple collaborators to publish information in a common web-based environment



Educational Resource Formats

- **FAQs**
- **Ask The Expert**
- **Basic Content Pages**
- **How-To's**
- **Learning Modules**
- **Other Products**

Frequently Asked Questions

- Currently Being Developed for Website
- Organized into:
 - Geospatial Technologies – GIS, RS, GPS
 - Data and Metadata
 - Getting Started
 - Applications
- Peer Reviewed
- Searchable



Question #25995

Which decisions need to be made when choosing digital aerial photography?

Answer:

Information obtained from remotely sensed data are based on spatial, spectral and temporal variations of these electromagnetic fields. Spatial variations tell us how much detail we can see in an image. Spectral resolution has to do with the overall size of the bandwidth. The finer the spectral resolution and the higher the sampling interval the better we are able to detect differences in the image. Temporal variations relate to the differences in the wavelength over time. The data behind a given image can also be referred to as pixel values. The differences and patterns among several pixels is used to make interpretations and explanations of surface features in the image. All of these factors need to be considered when understanding and using aerial photography.

Categories: geospatial technology

Keywords: remote sensing aerial imagery pixel resolution geospatial

Sample FAQs

- Can I use my cell phone as a GPS?
- Why are metadata important?
- What is a digital soil survey or SSURGO?
- How to I develop an enterprise GIS for my county?
- What is LiDAR and how is it used?
- How do I serve my GIS maps on the Internet?

Ask The Expert

- Expert list of CoP members to respond to FAQs and other requests
- Specializations are based on 7 focus areas
- Indicate your specialization or interest on CoP membership application

Content Deliverables

- Basic Content Pages
- How-To's
 - Simple step-by-step procedures for using data and software applications.
- Learning Modules
 - First year focus is on “Incorporating Geospatial Technologies into Local Government Operations for Rural and Community Planning.”

Other Products

- Podcasts
- Spanish Translation
- Web-enabled mapping services



Web Demonstration 1

- **Start with final product example WDM**
 - <http://www.extension.org/>
 - <http://www.extension.org/human-wildlife+relations>
- **FAQs**
 - <http://www.extension.org/human-wildlife+relations/faqs>
- **Ask the Expert**
 - <https://www.extension.org/user/login>
- **How-to – our preview site**
 - [http://cop.extension.org/wiki/How to Geotag and Display Pictures in Google Earth](http://cop.extension.org/wiki/How_to_Geotag_and_Display_Pictures_in_Google_Earth)
 - http://preview.extension.org/pages/How_to_Geotag_and_Display_Pictures_in_Google_Earth

Virtual Working Environment

- Internet Meetings
 - Breeze
 - Skype
- 2-3 day Content Development Workshops



How do I become a member of Map@Syst?

Nomination/Letter of Interest located at:

http://collaborate.extension.org/wiki/Map@Syst_Potential_Members

Send nominations to Nathan Mattox, via email (mattoxn@missouri.edu) or US Mail to

- **Nathan Mattox
University of Missouri
008 Stewart Hall
Columbia, MO 65211**

Vote for inclusion by existing membership



Thank You

Member Site (must have eXtensionID):
<http://cop.extension.org/Map@Syst>

eXtension Public Site
<http://www.extension.org>

